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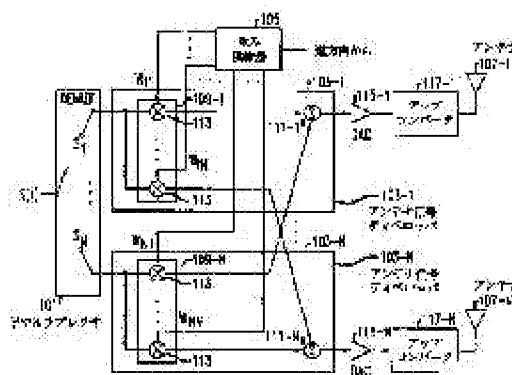
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(54) METHOD AND DEVICE FOR TRANSMITTING SIGNAL IN COMMUNICATION SYSTEM AND TRANSMITTER AND RECEIVER USED IN MIMO SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method and a device which can process signals to be transmitted from various antenna, for improving the capability of a receiver that extracts these transmitting signals from the received signals, regardless of some correlations in a MIMO system.

SOLUTION: The number of bit streams to be transmitted simultaneously is adjusted and decreased, according to the correlation level, and at the same time plural versions of every bit stream weighted in various ways are transmitted at the same time. These weighted versions are coupled together for generating a single-coupled weighting signal. A receiver processes the



received signals, as through all signals arrived at a receiving antenna with no correlation. A weight vector can be decided with a forward channel transmitter, by making use of the channel characteristic of a forward link that is notified to a transmitter of a forward link when the channel characteristic is transmitted from a receiver of a forward link via a transmitter of a reverse link.